

AMENDMENT(S) TO THE CLAIMS

1. (previously presented) A twin wire former in a machine for the production of a fiber web, comprising:

two revolving continuous wires including a top wire and a bottom wire, said top wire and said bottom wire converging to thereby form a stock inlet gap, said top wire and said bottom wire

5 being proximate to each other over a substantially vertical segment, said top wire and said bottom wire having a direction of travel;

a headbox from which a fiber stock suspension flows to said stock inlet gap;

at least one forming unit, said top wire and said bottom wire being proximate thereto;

at least one dewatering unit, said top wire and said bottom wire being proximate thereto,

10 said at least one dewatering unit following said at least one forming unit in said direction of travel;

a turning element proximate an upper portion of said vertical segment, said turning element having a peripheral area over which said two revolving continuous wires are turned, said turning element being substantially smooth; and

15 at least one separation element following said turning element in said direction of travel, said at least one separation element separating said top wire from said bottom wire.

2. (original) The twin wire former of claim 1, wherein said at least one separation element includes a transfer suction box supplied with a partial vacuum p_u of approximately 10 kPa to approximately 50 kPa by way of an adjustable vacuum source.

3. (original) The twin wire former of claim 2, wherein said partial vacuum p_u is between approximately 15 kPa and approximately 40 kPa.

4. (previously presented) A twin wire former in a machine for the production of a fiber web, comprising:

two revolving continuous wires including a top wire and a bottom wire, said top wire and said bottom wire converging to thereby form a stock inlet gap, said top wire and said bottom wire
5 being proximate to each other over a substantially vertical segment, said top wire and said bottom wire having a direction of travel;

a headbox from which a fiber stock suspension flows to said stock inlet gap;

at least one forming unit, said top wire and said bottom wire being proximate thereto;

at least one dewatering unit, said top wire and said bottom wire being proximate thereto,

10 said at least one dewatering unit following said at least one forming unit in said direction of travel;

a turning element proximate an upper portion of said vertical segment, said turning element having a peripheral area over which said two revolving continuous wires are turned, said turning element being substantially smooth; and

15 at least one separation element following said turning element in said direction of travel, said at least one separation element separating said top wire from said bottom wire, said at least one separation element including a transfer suction box having at least three slots, each said slot width being less than approximately 20 mm.

5. (original) The twin wire former of claim 4, wherein said slot width is less than approximately 15 mm.

6. (original) The twin wire former of claim 1, wherein said at least one separation element extends substantially across a width of the fiber web.

7. (previously presented) A twin wire former in a machine for the production of a fiber web, comprising:

two revolving continuous wires including a top wire and a bottom wire, said top wire and said bottom wire converging to thereby form a stock inlet gap, said top wire and said bottom wire being proximate to each other over a substantially vertical segment, said top wire and said bottom wire having a direction of travel;

a headbox from which a fiber stock suspension flows to said stock inlet gap;

at least one forming unit, said top wire and said bottom wire being proximate thereto;

at least one dewatering unit, said top wire and said bottom wire being proximate thereto,

10 said at least one dewatering unit following said at least one forming unit in said direction of travel;

a turning element proximate an upper portion of said vertical segment, said turning element having a peripheral area over which said two revolving continuous wires are turned, said turning element being substantially smooth;

15 at least one separation element following said turning element in said direction of travel, said at least one separation element separating said top wire from said bottom wire; and

at least one flat suction box, said turning element being a guide roll, said at least one separation element being a transfer suction box, said at least one flat suction box being located between said guide roll and said transfer suction box.

8. (original) The twin wire former of claim 7, further comprising at least one additional guide roll with a smaller diameter than said guide roll, said at least one additional guide roll being located between said guide roll and said transfer suction box.

9. (original) The twin wire former of claim 7, wherein said at least one flat suction box includes a first suction box and a second suction box, said first suction box being located between said guide roll and said transfer suction box, said second suction box being located after said transfer suction box in said direction of travel.

10. (original) The twin wire former of claim 1, wherein said turning element is a guide roll, said two revolving continuous wires are downwardly angled at from approximately 0° to approximately 60° from horizontal in said direction of travel.

11. (original) The twin wire former of claim 10, wherein said two revolving continuous wires are downwardly angled at from approximately 15° to approximately 45° from horizontal in said direction of travel.

12. (withdrawn) The twin wire former of claim 1, further comprising a water removal arrangement proximate said turning element, said water removal arrangement including:

a collection and return profile having a side facing said turning element;
a turning profile having a concave side directed toward an edge of said collection and
5 return profile; and
a drainage device disposed proximate an opposite edge of said collection and return profile.

13. (new) A twin wire former in a machine for the production of a fiber web, comprising:
two revolving continuous wires including a top wire and a bottom wire, said top wire and
10 said bottom wire converging to thereby form a stock inlet gap, said top wire and said bottom wire
being proximate to each other over a vertical segment, said top wire and said bottom wire having
a direction of travel;
a headbox from which a fiber stock suspension flows to said stock inlet gap;
at least one forming unit, said top wire and said bottom wire being proximate thereto;
15 at least one dewatering unit, said top wire and said bottom wire being proximate thereto,
said at least one dewatering unit following said at least one forming unit in said direction of
travel;
a turning element proximate an upper portion of said vertical segment, said turning
element having a peripheral area over which said two revolving continuous wires are turned, said
20 turning element being substantially smooth; and
at least one separation element following said turning element in said direction of travel,
said at least one separation element separating said top wire from said bottom wire.